



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,234	01/23/2004	Rajnish Batlaw	5729	8486

7590

07/12/2006

John E. Vick, Jr.
Legal Department
M-495
PO Box 1926
Spartanburg, SC 29304

EXAMINER

STAICOVICI, STEFAN

ART UNIT PAPER NUMBER

1732

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/764,234

Applicant(s)

BATLAW ET AL.

Examiner

Stefan Staicovici

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-12, 15, 23, 24, 28, 29, 31, 38, 40, 43, 44, 47, 48 and 50-98 is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 56-70, 72-84, 86-97 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/10/06; 3/3/06.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☒ Other: IDS: 3/14/06.

Continuation of Disposition of Claims: Claims withdrawn from consideration are 9-12,15,23,24,28,29,31,38,40,43,44,47,48,50-55,71,85 and 98.

DETAILED ACTION

Response to Amendment

1. Applicants' amendment filed April 24, 2006 has been entered. Claims 9-12, 15, 23-24, 28-29, 31, 38, 40, 43-44, 47-48, 50-98 are pending in the instant application. Claims 9-12, 15, 23-24, 28-29, 31, 38, 40, 43-44, 47-48 and 50-55 are withdrawn from consideration. New claims 56-98 have been added.

Election/Restrictions

2. Newly submitted claims 71, 85 and 98 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the product as claimed can be made by another and materially different process such as, vacuum forming two halves of a container and thermal bonding said halves to form said container.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 71, 85 and 98 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 56-58 and 64-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (US Patent No. 3,944,643) in view of Valyi (US Patent No. 4,382,905) and in further view of Oas *et al.* (US Patent No. 4,357,288).

Sato ('643) teaches the basic claimed process of injection stretch blow molding of a polypropylene container including, providing a polypropylene based composition having a melt flow index of 7 g/10 min, injecting said composition into a mold to form a preform and removing said preform to be blow molded in a subsequent molding step (see Abstract and col. 5, lines 64-67).

Regarding claim 56, although Sato ('643) teaches an injection molded polypropylene parison, Sato ('643) does not teach that the thickness of said parison is about 2-4 mm. However, injection molded parisons having a wall thickness of about 2-4 mm are well known as evidenced by Valyi ('905) who specifically teaches an injection molded polypropylene parison having a wall thickness of 3.6 mm (see col. 7, lines 8 and 43-45). Therefore, it would have been obvious for one of ordinary skill in the art to provide a wall thickness of 3.6 mm (about 2-4 mm) to the parison in the process of Sato ('643) because Valyi ('905) specifically teaches that such a value provides for forming an oriented container using a rapid operation cycle, hence providing for an improved product and process and also because both references teach similar processes, materials and end-products, hence suggesting similar problems and solutions.

Further regarding claim 56 and in regard to claim 57, although Sato ('643) in view of Valyi ('905) teaches an injection stretch blow molding process, Sato ('643) in view of Valyi ('905) does not teach an injection mold fill rate of at least 5 g/sec, specifically of about 5-22 grams/second. Oas *et al.* ('288) teach a process for making a clear, polypropylene container including, injection molding a cylindrical parison having an outer diameter of 1.5 inches, a wall thickness of 0.16 inches and a height of 4.3 inches (see col. 6, lines 7-25). As known, the mass of an object is the product of the density and the volume of said object. In this case, a simple calculation results in a volume of 2.89 in³. It is submitted that the density of polypropylene is 0.9 g/cm³, which is about 14.74 g/in³. Hence, the amount (mass) of polypropylene being injected is about 42.6 g. Oas *et al.* ('288) further teach a filling time of about 3-10 seconds (col. 5, lines 20-21). Hence, the injection mold fill rate is about 4.26-14.2 g/seconds. Therefore, it would have been obvious for one of ordinary skill in the art to provide a mold fill rate of about 4.26-14.2 g/seconds as taught by Oas *et al.* ('288) in the process of Sato ('643) in view of Valyi ('905) because Oas *et al.* ('288) specifically teach that such a fill rate avoids melt fracture or shearing of the polymeric material, hence providing for an improved product.

Further regarding claim 56 and in regards to claims 64-67, Oas *et al.* ('288) teach a haze of 2-8%. Sato ('643) teaches a container wall thickness of 0.1-0.2 mm (4-8 mils). Hence, the haze per mil is calculated as about 0.25-2 %/mil. Further, Oas *et al.* ('288) teach a side wall thickness of 15-30 mils, hence teaching a haze per mil is calculated as about 0.067-0.534 %/mil. Therefore, it would have been obvious for one of ordinary skill in the art to form a container having a haze of 0.25-2%/mil or about 0.067-0.534 %/mil by the process of Sato ('643) in view

of Valyi ('905) and in further view of Oas *et al.* ('288) because, Oas *et al.* ('288) specifically teach a desired haze of 2-8%, hence teaching that such values provide for an improved product. Further, it is noted that the haze is a property of the resulting container, hence being dependent on the material and the process parameters. As such, because the process of Sato ('643) in view of Valyi ('905) and in further view of Oas *et al.* ('288) teach the claimed materials and process parameters, it is submitted that the container obtained by the process of Sato ('643) in view of Valyi ('905) and in further view of Oas *et al.* ('288) will also have the claimed haze properties.

In regard to claim 58, Sato ('643) teaches an ethylene-propylene co-polymer (see col. 6, lines 23-24).

Specifically regarding claims 68-70, it is noted that the productivity of a molding process is dependent on the material being processed and the molding parameters, hence being a result effective variable. Therefore, it would have been obvious for one of ordinary skill in the art to have used routine experimentation in the process of Sato ('643) in view of Valyi ('905) and in further view of Oas *et al.* ('288) to determine an optimum production rate because it is well known that the productivity of a molding process is dependent on the material being processed and the molding parameters, hence being a result effective variable.

5. Claim 59-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (US Patent No. 3,944,643) in view of Valyi (US Patent No. 4,382,905) and in further view of Oas *et al.* (US Patent No. 4,357,288) and Schmidt *et al.* (US2004/0063830 A1).

Sato ('643) in view of Valyi ('905) and in further view of Oas *et al.* ('288) teach the basic claimed process as described above.

Regarding claims 59-63, Sato ('643) in view of Valyi ('905) and in further view of Oas *et al.* ('288) do not teach the use of a nucleating agent. However, the use of a nucleating agent to improve the transparency of the polypropylene molded container is well known as evidence by Schmidt *et al.* (US2004/0063830 A1) who teaches the use of DBS as a nucleating agent, specifically 1,3-2,4-dimethylbenzylidene (see paragraph [0004]). Therefore, it would have been obvious for one of ordinary skill in the art to have provided DBS as a nucleating agent as taught by Schmidt *et al.* (US2004/0063830 A1) in the process of Sato ('643) in view of Valyi ('905) and in further view of Oas *et al.* ('288) because, Schmidt *et al.* (US2004/0063830 A1) teaches that DBS (nucleating agent) provides for improved transparency, hence providing for an improved product.

6. Claims 72-73, 78-84 and 86-88 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60-125627 in view of Valyi (US Patent No. 4,382,905) and in further view of Oas *et al.* (US Patent No. 4,357,288).

JP 60-125627 teaches the basic claimed process of injection stretch blow molding of a polypropylene container including, providing a polypropylene based composition having a melt flow index of 4-50 g/10 min, injecting said composition into a mold to form a preform and removing said preform to be blow molded in a subsequent molding step. Further, JP 60-125627 teaches reheating and stretch-blow molding of the preform to form a container (see Abstract).

Regarding claims 72 and 86-88, although JP 60-125627 teaches an injection molded polypropylene parison, JP 60-125627 does not teach that the thickness of said parison is about 2-4 mm. However, injection molded parisons having a wall thickness of about 2-4 mm are well

known as evidenced by Valyi ('905) who specifically teaches an injection molded polypropylene parison having a wall thickness of 3.6 mm (about 2-4 mm) (see col. 7, lines 8 and 43-45). Therefore, it would have been obvious for one of ordinary skill in the art to provide a wall thickness of 3.6 mm (about 2-4 mm) as taught by Valyi ('905) to the parison in the process of JP 60-125627 because, Valyi ('905) specifically teaches that such a value provides for forming an oriented container using a rapid operation cycle, hence providing for an improved product and process and also because, both references teach similar processes, materials and end-products, hence suggesting similar problems and solutions. Further regarding claim 86, although JP 60-125627 in view of Valyi ('905) do not specifically teach a parison wall thickness of about 2 mm, it is submitted that the parison wall thickness is the result of the injection molding parameters and materials. It is submitted that because JP 60-125627 in view of Valyi ('905) teach the claimed materials and process parameters, that it would have been obvious to use routine experimentation in the process of JP 60-125627 in view of Valyi ('905) to obtain a parison wall thickness of 2 mm because of known advantages such as reduced production time, reduced material consumption, reduced cooling time, hence providing for a faster and less expensive process. Furthermore, it is noted that JP 60-125627 in view of Valyi ('905) teach a parison wall thickness of 3.6 mm, about 2-4 mm.

Further regarding claim 72, JP 60-125627 in view of Valyi ('905) does not teach a mold fill rate of about 5-22 g/sec. Oas *et al.* ('288) teach a process for making a clear, polypropylene container including, injection molding a cylindrical parison having an outer diameter of 1.5 inches, a wall thickness of 0.16 inches and a height of 4.3 inches (see col. 6, lines 7-25). As

known, the mass of an object is the product of the density and the volume of said object. In this case, a simple calculation results in a volume of 2.89 in^3 . It is submitted that the density of polypropylene is 0.9 g/cm^3 , which is about 14.74 g/in^3 . Hence, the amount (mass) of polypropylene being injected is about 42.6 g. Oas *et al.* ('288) further teach a filling time of about 3-10 seconds (col. 5, lines 20-21). Hence, the injection mold fill rate is about 4.26-14.2 g/seconds. Therefore, it would have been obvious for one of ordinary skill in the art to provide a mold fill rate of about 4.26-14.2 g/seconds as taught by Oas *et al.* ('288) in the process of JP 60-125627 in view of Valyi ('905) because Oas *et al.* ('288) specifically teach that such a fill rate avoids melt fracture or shearing of the polymeric material, hence providing for an improved product.

Further regarding claim 72 and in regards to claims 78-81, Oas *et al.* ('288) teach a haze of 2-8%. Sato ('643) teaches a container wall thickness of 0.1-0.2 mm (4-8 mils). Hence, the haze per mil is calculated as about 0.25-2 %/mil. Further, Oas *et al.* ('288) teach a side wall thickness of 15-30 mils, hence teaching a haze per mil is calculated as about 0.067-0.534 %/mil. Therefore, it would have been obvious for one of ordinary skill in the art to form a container having a haze of 0.25-2%/mil or about 0.067-0.534 %/mil by the process of JP 60-125627 in view of Valyi ('905) and in further view of Oas *et al.* ('288) because, Oas *et al.* ('288) specifically teach a desired haze of 2-8%, hence teaching that such values provide for an improved product. Further, it is noted that the haze is a property of the resulting container, hence being dependent on the material and the process parameters. As such, because the process of JP 60-125627 in view of Valyi ('905) and in further view of Oas *et al.* ('288) teach the claimed

materials and process parameters, it is submitted that the container obtained by the process of JP 60-125627 in view of Valyi ('905) and in further view of Oas *et al.* ('288) will also have the claimed haze properties.

Specifically regarding claims 82-84, it is noted that the productivity of a molding process is dependent on the material being processed and the molding parameters, hence being a result effective variable. Therefore, it would have been obvious for one of ordinary skill in the art to have used routine experimentation in the process of JP 60-125627 in view of Valyi ('905) and in further view of Oas *et al.* ('288) to determine an optimum production rate because it is well known that the productivity of a molding process is dependent on the material being processed and the molding parameters, hence being a result effective variable.

Regarding claim 73, JP 60-125627 teaches the use of a nucleating agent (see Abstract).

7. Claims 74-77 and 89-97 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60-125627 in view of Valyi (US Patent No. 4,382,905) and in further view of Oas *et al.* (US Patent No. 4,357,288) and Schmidt *et al.* (US2004/0063830 A1).

JP 60-125627 teaches the basic claimed process of injection stretch blow molding of a polypropylene container including, providing a polypropylene based composition having a melt flow index of 4-50 g/10 min, injecting said composition into a mold to form a preform and removing said preform to be blow molded in a subsequent molding step. Further, JP 60-125627 teaches reheating and stretch-blow molding of the preform to form a container (see Abstract). Further, JP 60-125627 teaches the use of a nucleating agent (see Abstract).

Regarding claim 89, although JP 60-125627 teaches an injection molded polypropylene parison, JP 60-125627 does not teach that the thickness of said parison is about 2-4 mm. However, injection molded parisons having a wall thickness of about 2-4 mm are well known as evidenced by Valyi ('905) who specifically teaches an injection molded polypropylene parison having a wall thickness of 3.6 mm (about 2-4 mm) (see col. 7, lines 8 and 43-45). Therefore, it would have been obvious for one of ordinary skill in the art to provide a wall thickness of 3.6 mm (about 2-4 mm) as taught by Valyi ('905) to the parison in the process of JP 60-125627 because, Valyi ('905) specifically teaches that such a value provides for forming an oriented container using a rapid operation cycle, hence providing for an improved product and process and also because, both references teach similar processes, materials and end-products, hence suggesting similar problems and solutions.

Further regarding claim 89, JP 60-125627 in view of Valyi ('905) does not teach a mold fill rate of about 5-22 g/sec. Oas *et al.* ('288) teach a process for making a clear, polypropylene container including, injection molding a cylindrical parison having an outer diameter of 1.5 inches, a wall thickness of 0.16 inches and a height of 4.3 inches (see col. 6, lines 7-25). As known, the mass of an object is the product of the density and the volume of said object. In this case, a simple calculation results in a volume of 2.89 in^3 . It is submitted that the density of polypropylene is 0.9 g/cm^3 , which is about 14.74 g/in^3 . Hence, the amount (mass) of polypropylene being injected is about 42.6 g. Oas *et al.* ('288) further teach a filling time of about 3-10 seconds (col. 5, lines 20-21). Hence, the injection mold fill rate is about 4.26-14.2 g/seconds. Therefore, it would have been obvious for one of ordinary skill in the art to provide a

mold fill rate of about 4.26-14.2 g/seconds as taught by Oas *et al.* ('288) in the process of JP 60-125627 in view of Valyi ('905) because Oas *et al.* ('288) specifically teach that such a fill rate avoids melt fracture or shearing of the polymeric material, hence providing for an improved product.

Further regarding claim 89 and, in regard to claims 74-77, although JP 60-125627 teaches the use of a nucleating agent, JP 60-125627 in view of Valyi ('905) and in further view of Oas *et al.* ('288) do not teach a specific nucleating agent. However, the use of a nucleating agent to improve the transparency of the polypropylene molded container is well known as evidence by Schmidt *et al.* (US2004/0063830 A1) who teaches the use of a variety of nucleating agents including the claimed nucleating agents. Therefore, it would have been obvious for one of ordinary skill in the art to have provided the nucleating agent taught by Schmidt *et al.* (US2004/0063830 A1) in the process of JP 60-125627 in view of Valyi ('905) and in further view of Oas *et al.* ('288) because, Schmidt *et al.* (US2004/0063830 A1) teaches that a nucleating agent provides for improved transparency, hence providing for an improved product.

Regarding claims 90-94, Oas *et al.* ('288) teach a haze of 2-8%. Sato ('643) teaches a container wall thickness of 0.1-0.2 mm (4-8 mils). Hence, the haze per mil is calculated as about 0.25-2 %/mil. Further, Oas *et al.* ('288) teach a side wall thickness of 15-30 mils, hence teaching a haze per mil as about 0.067-0.534 %/mil. Therefore, it would have been obvious for one of ordinary skill in the art to form a container having a haze of 0.25-2%/mil or about 0.067-0.534 %/mil by the process of JP 60-125627 in view of Valyi ('905) and in further view of Oas *et al.* ('288) and Schmidt *et al.* (US2004/0063830 A1) because, Oas *et al.* ('288) specifically teach a

desired haze of 2-8%, hence teaching that such values provide for an improved product. Further, it is noted that the haze is a property of the resulting container, hence being dependent on the material and the process parameters. As such, because the process of JP 60-125627 in view of Valyi ('905) and in further view of Oas *et al.* ('288) and Schmidt *et al.* (US2004/0063830 A1) teach the claimed materials and process parameters, it is submitted that the container obtained by the process of JP 60-125627 in view of Valyi ('905) and in further view of Oas *et al.* ('288) and Schmidt *et al.* (US2004/0063830 A1) will also have the claimed haze properties.

Specifically regarding claims 95-97, it is noted that the productivity of a molding process is dependent on the material being processed and the molding parameters, hence being a result effective variable. Therefore, it would have been obvious for one of ordinary skill in the art to have used routine experimentation in the process of JP 60-125627 in view of Valyi ('905) and in further view of Oas *et al.* ('288) and Schmidt *et al.* (US2004/0063830 A1) to determine an optimum production rate because it is well known that the productivity of a molding process is dependent on the material being processed and the molding parameters, hence being a result effective variable.

8. Claims 56-60, 64-70, 72-74, 78-84 and 86-97 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60- 127336 in view Valyi ('905) and in further view of Oas *et al.* ('288).

JP 60-127336 teaches the basic claimed process of injection stretch blow molding of a polypropylene container including, providing a polypropylene based composition having a melt flow index of 4-50 g/10 min, injecting said composition into a mold to form a preform and

removing said preform to be blow molded in a subsequent molding step. Further, JP 60-127336 teaches reheating and stretch-blow molding of the preform to form a container (see Abstract). Further, JP 60-127336 teaches the use of a nucleating agent, specifically DBS (see Abstract).

Regarding claims 56, 72 and 86-89, although JP 60-127336 teaches an injection molded polypropylene parison, JP 60-127336 does not teach that the thickness of said parison is about 2-4 mm. However, injection molded parisons having a wall thickness of about 2-4 mm are well known as evidenced by Valyi ('905) who specifically teaches an injection molded polypropylene parison having a wall thickness of 3.6 mm (about 2-4 mm) (see col. 7, lines 8 and 43-45). Therefore, it would have been obvious for one of ordinary skill in the art to provide a wall thickness of 3.6 mm (about 2-4 mm) as taught by Valyi ('905) to the parison in the process of JP 60-127336 because, Valyi ('905) specifically teaches that such a value provides for forming an oriented container using a rapid operation cycle, hence providing for an improved product and process and also because, both references teach similar processes, materials and end-products, hence suggesting similar problems and solutions. Further regarding claim 86, although JP 60-127336 in view of Valyi ('905) do not specifically teach a parison wall thickness of about 2 mm, it is submitted that the parison wall thickness is the result of the injection molding parameters and materials. It is submitted that because JP 60-127336 in view of Valyi ('905) teach the claimed materials and process parameters, that it would have been obvious to use routine experimentation in the process of JP 60-127336 in view of Valyi ('905) to obtain a parison wall thickness of 2 mm because of known advantages such as reduced production time, reduced material consumption, reduced cooling time, hence providing for a faster and less expensive

process. Furthermore, it is noted that JP 60-127336 in view of Valyi ('905) teach a parison wall thickness of 3.6 mm, hence about 2-4 mm.

Further regarding claim 56, 72 and 89, and in regard to claim 57, JP 60-127336 in view of Valyi ('905) does not teach a mold fill rate of at least 5 g/s, specifically about 5-22 g/sec. Oas *et al.* ('288) teach a process for making a clear, polypropylene container including, injection molding a cylindrical parison having an outer diameter of 1.5 inches, a wall thickness of 0.16 inches and a height of 4.3 inches (see col. 6, lines 7-25). As known, the mass of an object is the product of the density and the volume of said object. In this case, a simple calculation results in a volume of 2.89 in³. It is submitted that the density of polypropylene is 0.9 g/cm³, which is about 14.74 g/in³. Hence, the amount (mass) of polypropylene being injected is about 42.6 g. Oas *et al.* ('288) further teach a filling time of about 3-10 seconds (col. 5, lines 20-21). Hence, the injection mold fill rate is about 4.26-14.2 g/seconds. Therefore, it would have been obvious for one of ordinary skill in the art to provide a mold fill rate of about 4.26-14.2 g/seconds as taught by Oas *et al.* ('288) in the process of JP 60-127336 in view of Valyi ('905) because Oas *et al.* ('288) specifically teach that such a fill rate avoids melt fracture or shearing of the polymeric material, hence providing for an improved product.

Further regarding claim 89 and, in regard to claims 59-60 and 73-74, JP 60-127336 teaches the use of a nucleating agent, specifically DBS (see Abstract).

Further regarding claims 56 and 72, and in regard to claims 64-67, 78-81, 90-94, JP 60-127336 teaches a haze of less than 9%/mm, hence less than 0.225/mil (about 0.2%/mil) (see Abstract). Further, Oas *et al.* ('288) teach a haze of 2-8%. Sato ('643) teaches a container wall

thickness of 0.1-0.2 mm (4-8 mils). Hence, the haze per mil is calculated as about 0.25-2 %/mil. Further, Oas *et al.* ('288) teach a side wall thickness of 15-30 mils, hence teaching a haze per mil as about 0.067-0.534 %/mil. Therefore, it would have been obvious for one of ordinary skill in the art to form a container having a haze of 0.25-2%/mil or about 0.067-0.534 %/mil by the process of JP 60-127336 in view of Valyi ('905) and in further view of Oas *et al.* ('288) because, Oas *et al.* ('288) specifically teach a desired haze of 2-8%, hence teaching that such values provide for an improved product. Further, it is noted that the haze is a property of the resulting container, hence being dependent on the material and the process parameters. As such, because the process of JP 60-127336 in view of Valyi ('905) and in further view of Oas *et al.* ('288) teach the claimed materials and process parameters, it is submitted that the container obtained by the process of JP 60-127336 in view of Valyi ('905) and in further view of Oas *et al.* ('288) will also have the claimed haze properties.

Specifically regarding claims 68-70, 82-84 and 95-97, it is noted that the productivity of a molding process is dependent on the material being processed and the molding parameters, hence being a result effective variable. Therefore, it would have been obvious for one of ordinary skill in the art to have used routine experimentation in the process of JP 60-127336 in view of Valyi ('905) and in further view of Oas *et al.* ('288) to determine an optimum production rate because it is well known that the productivity of a molding process is dependent on the material being processed and the molding parameters, hence being a result effective variable.

9. Claims 61-63 and 75-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60- 127336 in view Valyi ('905) and in further view of Oas *et al.* ('288) and Schmidt *et al.* (US2004/0063830 A1).

JP 60-127336 in view of Valyi ('905) and in further view of Oas *et al.* ('288) teaches the basic claimed process as described above.

Regarding claims 61-63 and 75-77, although JP 60-127336 in view of Valyi ('905) and in further view of Oas *et al.* ('288) teach a DBS nucleating agent, JP 60-127336 in view of Valyi ('905) and in further view of Oas *et al.* ('288) do not teach a specific compound. Schmidt *et al.* (US2004/0063830 A1) who teaches the use of a variety of nucleating agents including the claimed DBS nucleating agent compounds. Therefore, it would have been obvious for one of ordinary skill in the art to have provided the DBS nucleating agents taught by Schmidt *et al.* (US2004/0063830 A1) in the process of JP 60-127336 in view of Valyi ('905) and in further view of Oas *et al.* ('288) because, Schmidt *et al.* (US2004/0063830 A1) teaches that a nucleating agent provides for improved transparency, hence providing for an improved product. And also because, JP 60-127336 teaches a DBS nucleating agent, hence suggesting the use of the DBS nucleating agents taught by Schmidt *et al.* (US2004/0063830 A1).

Response to Arguments

10. Applicant's arguments filed April 24, 2006 have been considered but are moot in view of the new ground(s) of rejection.

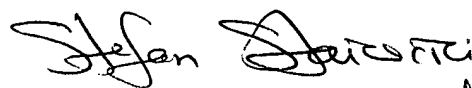
Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Staicovici, Ph.D. whose telephone number is (571) 272-1208. The examiner can normally be reached on Monday-Friday 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson, can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stefan Staicovici, PhD



Primary Examiner

7/9/06

AU 1732

July 9, 2006